DOCUMENT RESUME

ED 474 513 PS 031 118

| | |
|---|---|
| TITLE | Traffic Safety Facts, 2001: Children. |
| INSTITUTION | National Highway Traffic Safety Administration (DOT), Washington, DC.; National Center for Statistics and Analysis (NHTSA), Washington, DC. |
| REPORT NO | DOT-HS-809-471 |
| PUB DATE | 2001-00-00 |
| NOTE | 7p.; For 2000 report, see ED 462 165. |
| AVAILABLE FROM | National Center for Statistics and Analysis, NRD-31, 400 Seventh Street, S.W., Washington, DC 20590. Tel: 800-934-8517 (Toll Free); Fax: 202-366-7078; Web site: http://www.nhtsa.dot.gov/ people/ncsa. |
| PUB TYPE | Numerical/Quantitative Data (110) -- Reports - Descriptive (141) |
| EDRS PRICE | EDRS Price MF01/PC01 Plus Postage. |
| DESCRIPTORS | Bicycling; Child Safety; *Children; Death; *Incidence; Mortality Rate; Motor Vehicles; Pedestrian Traffic; Restraints (Vehicle Safety); *Traffic Accidents; Traffic Safety; Vehicular Traffic |
| IDENTIFIERS | United States |

ABSTRACT

This document provides statistical information on the incidence of U.S. motor vehicle-related accidents and fatalities involving children. Data include: (1) total traffic fatalities among children 0-14 years old, by age group, 1991-2001; (2) total pedestrian fatalities among children 0-14 years old, by age group, 1991-2001; (3) total pedalcyclist fatalities among children 0-14 years old, by age group, 1991-2001; (4) restraint use by passenger vehicle occupants involved in fatal crashes by age group, 2001; (5) children under 5 years old fatally injured in passenger vehicle crashes, by age group and type of restraint, 2001; and (6) restraint use by children under 5 years old. According to the data, motor vehicle crashes are the leading cause of death for children of every age from 4 to 14 years old, and the 0-14 age group accounted for 5 percent of traffic fatalities in 2001. (HTH)

Reproductions supplied by EDRS are the best that can be made
from the original document.

PS PSTR 0104

ED 474 513

DOT HS 809 471

U.S. Department of Transportation
National Highway Traffic Safety Administration

# Traffic Safety Facts 2001

## Children

NHTSA
People Saving People
http://www.nhtsa.dot.gov

NCSA
National Center for Statistics & Analysis of the National Highway Traffic Safety Administration

***A Public Information Fact Sheet on Motor Vehicle and Traffic Safety Published by the National Highway Traffic Safety Administration's National Center for Statistics and Analysis***

In 2000, there were more than 60 million children under 15 years old in the United States. This age group (0-14 years) made up 21 percent of the total U.S. resident population in 2000 (2001 data not available).

Motor vehicle crashes are the **leading cause of death** for children of every age from 4 to 14 years old (based on 1998 figures, which are the latest mortality data currently available from the National Center for Health Statistics).

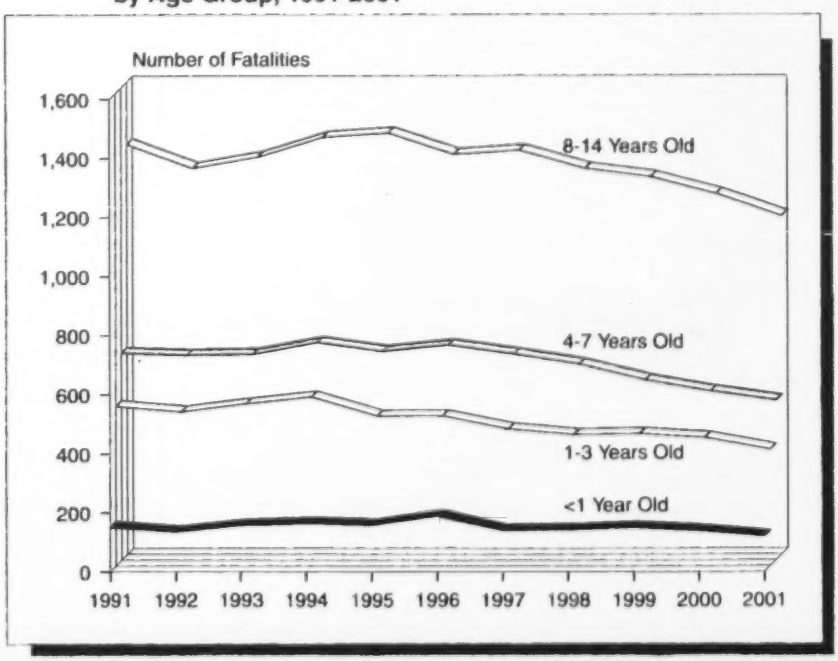
In 2001, there were a total of 42,116 traffic fatalities in the United States. The 0-14 age group accounted for 5 percent (2,197) of those traffic fatalities. In addition, children under 15 years old accounted for 4 percent (1,579) of all vehicle **occupant fatalities**, 9 percent (267,000) of all the **people injured** in motor vehicle crashes, and 8 percent (228,000) of all the vehicle occupants injured in crashes.

***"Motor vehicle crashes are the leading cause of death for children from 4 to 14 years old."***

In the United States, an average of 6 children 0-14 years old were killed and 732 were injured every day in motor vehicle crashes during 2001.

In the 0-14 year age group, males accounted for 57 percent of the fatalities and 51 percent of those injured in motor vehicle crashes during 2001.

**Figure 1. Total Traffic Fatalities Among Children 0-14 Years Old by Age Group, 1991-2001**




U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
X This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

813 CS



BEST COPY AVAILABLE

## Child Endangerment

*In 2001, NHTSA began using a revised method — **multiple imputation** — to estimate missing information about blood alcohol concentration (BAC) levels for persons involved in fatal crashes. The alcohol estimates in this fact sheet are based on the new imputation method. More information on the new multiple imputation method, including detailed tabulations of alcohol involvement in various categories (age, sex, time of day, etc.), is available in NHTSA Technical Report DOT HS 809 403,* Transitioning to Multiple Imputation: A New Method to Estimate Missing Blood Alcohol Concentration (BAC) Values in FARS.

In 2001, 23 percent of the children under 15 years old who were killed in motor vehicle crashes were killed in alcohol-related crashes.

Of the children 0-14 years old who were killed in alcohol-related crashes during 2001, more than half (261) were passengers in vehicles with drivers who had been drinking, with blood alcohol concentration (BAC) levels of 0.01 gram per deciliter (g/dl) or higher. An additional 104 children were killed as passengers in vehicles with drivers who had not been drinking.

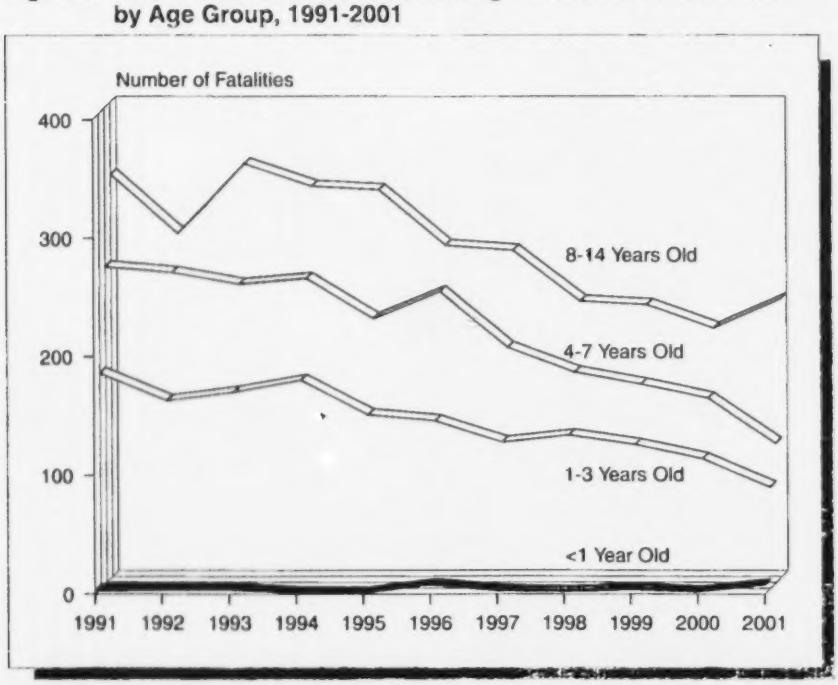
***"In 2001, 23 percent of the children under 15 years old killed in crashes were killed in alcohol-related crashes."***

Another 81 children under 15 years old who were killed in traffic crashes in 2001 were pedestrians or pedalcyclists who were struck by drinking drivers (BAC ≥0.01 g/dl).

## Pedestrians

In 1991, there were 789 pedestrian fatalities in the 0-14 year age group. From 1991 to 2001, the number of pedestrian fatalities in this age group decreased by 44 percent, with the 4-7 year age group showing the largest decrease.

**Figure 2. Total Pedestrian Fatalities Among Children 0-14 Years Old by Age Group, 1991-2001**



There were 4,882 pedestrian fatalities in 2001. The 0-14 age group accounted for 444 (9 percent) of those fatalities, and 65 percent of the pedestrian fatalities in this age group were males.

In addition to the pedestrians under 15 years old who died, 21,000 were injured in motor vehicle crashes. These young pedestrians accounted for 26 percent of the total pedestrians injured in motor vehicle crashes in 2001.

One-fifth (20 percent) of the traffic fatalities in the 0-14 year age group were pedestrians.

During 2001, 43 percent of the young pedestrian fatalities occurred between the hours of 4 pm and 8 pm, and 82 percent occurred at non-intersection locations.

### *Pedalcyclists*

A total of 728 pedalcyclists were killed in motor vehicle crashes in 2001. Children 0-14 years old accounted for 137 (19 percent) of those fatalities.

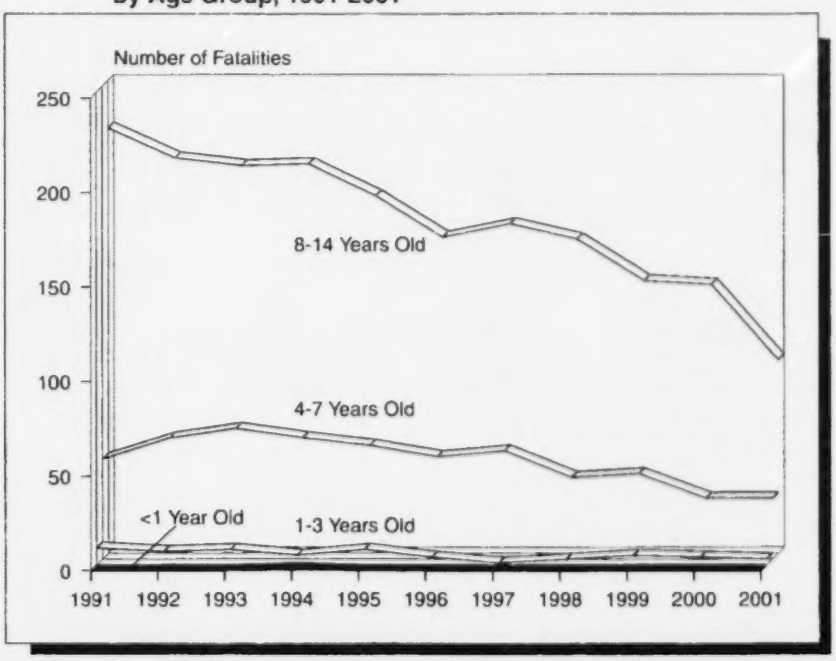
***"In 2001, 36 percent of the pedalcyclists injured in motor vehicle crashes were under 15 years old."***

In 2001, 36 percent of the pedalcyclists injured in motor vehicle crashes were under 15 years old.

The 137 pedalcyclist fatalities in 2001 for the 0-14 year age group represent a decrease of 52 percent from the 287 killed in 1991.

Bicycle helmets are 85 to 88 percent effective in mitigating head and brain injuries in all types of bicycle incidents, making the use of helmets the **single most effective countermeasure** available to reduce head injuries and fatalities resulting from bicycle crashes. (Source: Robert Thompson, *A Case Control Study of the Effectiveness of Bicycle Safety Helmets*, Centers for Disease Control.)

**Figure 3. Total Pedalcyclist Fatalities Among Children 0-14 Years Old by Age Group, 1991-2001**



## Restraints

Research has shown that lap/shoulder safety belts, when used, **reduce the risk of fatal injury** to front seat occupants (age 5 years and older) of passenger cars by 45 percent and the risk of moderate-to-critical injury by 50 percent. For light truck occupants, safety belts reduce the risk of fatal injury by 60 percent and the risk of moderate-to-critical injury by 65 percent.

During 2001, 8,054 passenger vehicle occupants under 15 years old were involved in fatal crashes. For those children, where restraint use was known, 34 percent were unrestrained; among those who were fatally injured, 55 percent were unrestrained.

**Table 1. Restraint Use by Passenger Vehicle Occupants Involved in Fatal Crashes by Age Group, 2001**

| | Age Group (Years) | | | | | | |
|---|---|---|---|---|---|---|---|
| Percentage Unrestrained | <1 | 1-3 | 4-7 | 8-14 | 15-20 | All Other | Total |
| | 22 | 25 | 33 | 43 | 50 | 40 | 41 |

***"Child safety seats reduce the risk of fatal injury by 71 percent for infants and by 54 percent for toddlers in passenger cars."***

Research on the effectiveness of child safety seats has found them to reduce fatal injury by 71 percent for infants (less than 1 year old) and by 54 percent for toddlers (1-4 years old) in passenger cars. For infants and toddlers in light trucks, the corresponding reductions are 58 percent and 59 percent, respectively.

In 2001, there were 497 passenger vehicle occupant fatalities among children under 5 years of age. Of those 497 fatalities, an estimated 242 (49 percent) were totally unrestrained.

**Table 2. Children Under 5 Years Old Fatally Injured in Passenger Vehicle Crashes by Age Group and Type of Restraint, 2001**

| Type of Restraint | Infants (Under Age 1) | Toddlers (Age 1-4) | Total |
|---|---|---|---|
| None Used | 55 | 187 | **242** |
| Child Seat | 47 | 147 | **194** |
| Adult Seat Belt | 4 | 57 | **61** |
| **Total** | **106** | **391** | **497** |

Note: In this table, fatalities with unknown restraint use have been distributed proportionally across the known restraint use categories.

From 1975 through 2001, an estimated 5,085 lives were saved by the use of child restraints (child safety seats or adult belts). In 2001, an estimated 269 children under age 5 were saved as a result of child restraint use.

If 100 percent of motor vehicle occupants under 5 years old were protected by child safety seats, an estimated 407 lives (that is, an additional 138) could have been saved in 2001.

In 2000, NHTSA conducted the National Occupant Protection Use Survey (NOPUS). One of the studies in the survey was the Controlled Intersection Study, which provided more detailed information about child restraint use for children under 5 years old.

**Table 3. Restraint Use by Children Under 5 Years Old**

| Grouping | Restraint Use (Percent) | Grouping | Restraint Use (Percent) |
|---|---|---|---|
| Overall | 91 | Rush Hour | 95 |
| Infants (<1 Year) | 95 | Non-Rush Hour | 92 |
| Toddlers (1 to 4 Years) | 91 | Weekday | 94 |
| Passenger Cars | 92 | Weekend | 84 |
| Light Trucks | 98 | City | 96 |
| Front Seat | 94 | Suburban | 94 |
| Back Seat | 91 | Rural | 72 |

***"Children in rear-facing child seats should not be placed in the front seat of vehicles with passenger air bags. The impact of a deploying air bag on a rear-facing child seat could injure the child."***

Failure to read the child safety seat instructions, in addition to vehicle owner manual instructions regarding safety belts, could result in serious injury or death as a result of a failure of the child safety seat to be securely and/or properly restrained.

Children in rear-facing child seats **should not** be placed in the front seat of vehicles equipped with passenger-side air bags. The impact of a deploying air bag striking a rear-facing child seat could result in injury to the child. NHTSA also recommends that children 12 and under sit in the rear seat away from the force of a deploying air bag.

For more information:

Information on youth safety is available from the National Center for Statistics and Analysis, NPO-121, 400 Seventh Street, S.W., Washington, D.C. 20590. NCSA information can also be obtained by telephone or by fax-on-demand at 1-800-934-8517. FAX messages should be sent to (202) 366-7078. General information on highway traffic safety can be accessed by Internet users at http://www-nrd.nhtsa.dot.gov/people/ncsa. To report a safety-related problem or to inquire about motor vehicle safety information, contact the Auto Safety Hotline at 1-800-424-9393.

Other fact sheets available from the National Center for Statistics and Analysis are *Overview, Alcohol, Occupant Protection, Older Population, Speeding, Young Drivers, Pedestrians, Pedalcyclists, Motorcycles, Large Trucks, School Transportation-Related Crashes, State Traffic Data,* and *State Alcohol Estimates.* Detailed data on motor vehicle traffic crashes are published annually in *Traffic Safety Facts: A Compilation of Motor Vehicle Crash Data from the Fatality Analysis Reporting System and the General Estimates System.*

U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

400 Seventh St., S.W.
Washington, D.C. 20590

Official Business
Penalty for Private Use $300

**U.S. Department of Education**
*Office of Educational Research and Improvement (OERI)*
*National Library of Education (NLE)*
*Educational Resources Information Center (ERIC)*

# NOTICE

## Reproduction Basis

| | |
|---|---|
| | This document is covered by a signed "Reproduction Release (Blanket)" form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form. |
| X | This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket"). |



PS031118